

NEOPARENTIA, A NEW GENUS OF AMERICAN DOLICHOPODIDAE  
(DIPTERA)

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During the century since the recognition of *Sympycnus* Loew, the genus has been relatively ill-defined and has been easily confused with other genera in various subfamilies such as *Symbolia* (Diaphorinae), *Stolidosoma* (Stolidosominae), and *Peloropecodes* (Rhaphiinae). The most critical efforts have left a large and variable genus, and attempts at further subdivision have depended excessively on characters limited to the male sex. Only recently it has been possible to clarify the status of one very natural and uniform segregate genus, *Calyxochaetus*, which differs from *Sympycnus* by the lack of hairs on the scutellum (Robinson, 1964).

Collecting in southern Mexico I have found a number of species of Sympycninae which lack hairs on the scutellum but otherwise in no way resemble *Calyxochaetus*. These species all possess long thread-like hypopygial lamellae, a character that led Parent (1954) to describe a related species from Costa Rica as a *Nematoproctus*. For these species I propose the recognition of the following new genus.

*Neoparentia*, gen. nov.

Setae mostly black. Face very narrow, usually with eyes contiguous near the middle in the male; front broad, broader above, mostly metallic greenish or bluish; palpi small; proboscis brownish; antennal segment 1 bare above, segment 2 truncate apically, segment 3 with arista dorsal; lower orbital setae uniseriate, pale. Mesoscutum not flattened posteriorly; acrostichals uniseriate; 6 pairs of dorso-centrals; 2 scutellars, scutellum without hairs; proepisternum with only a few pale setae above. Middle and hind coxae with an external bristle; mid femur with both anterior and posterior preapical; hind femur with 1 or 2 preapicals anteriorly; front metatarsus of male not shortened. Wing elongate oval; veins 3 and 4 nearly straight and parallel to noticeably divergent beyond the crossvein; last part of vein 5 distinctly longer than crossvein; vein 6 represented by slight fold. Abdomen cylindrical in male, 6 tergites visible; hypopygium small usually rather globose, placed on tip of abdomen; lamellae filliform.

Type species, *Neoparentia bisetosa* sp. n.

The various hypopygia of *Neoparentia* are highly divergent in form but in no case show the conical shape that is typical of *Calyxochaetus*. Neither are the hypopygial lamellae short and inconspicuous as in that genus. In addition, *Calyxochaetus* usually has a shining violet front (obscured by pollen in *C. nodatus*), and usually has the front metatarsus of the male shortened (not shortened in *C. metatarsalis*). The face of *Neoparentia* is narrower in both sexes,  $\frac{1}{4}$  as wide below as high in the female compared  $\frac{1}{3}$  or more as wide below as high in the female of *Calyxochaetus*.

The new genus contains two rather different elements, the smaller species showing little superficial resemblance to the larger ones. Apparently *Neoparentia* is itself a complex showing considerable evolutionary divergence.

#### KEY TO THE SPECIES OF *Neoparentia*

1. Abdominal tergites 2 and 3 yellow on the side; sternite 5 sometimes with a pair of stout rodlike setae; hypopygial capsule forming a pair of long slender projections on the forward end; length usually 3 mm or more ..... 2  
 Abdominal tergites wholly dark, sternite 5 without rodlike setae; hypopygial capsule blunt or with only short projections on the forward end; length less than 3 mm ..... 4
2. Metepimeron yellow; abdominal sternite 5 without large rodlike setae (Costa Rica) ..... **bicolor** (Parent)  
 Metepimeron dark; abdominal sternite 5 of male with large rodlike setae ..... 3
3. Length 2-3 mm; second joint of male fore tarsus somewhat thickened (California) ..... **caudata** (Van Duzee)  
 Length 3-3.5 mm; fore tarsus of male plain (Oaxaca, Chiapas) ..... **bisetosa** sp. n.
4. Palpus white; acrostichals sparse or lacking posteriorly; wing of male with tip deformed, veins 3 and 4 strongly diverging apically (Oaxaca, Chiapas) ..... **deformis** sp. n.  
 Palpus dark; acrostichals distinctly reaching onto posterior slope; wing of male not greatly deformed, veins 3 and 4 hardly diverging apically ..... 5
5. Hind tibia with two anterodorsals; male fore tarsus with last joints modified, usually folded against each other (Oaxaca, Chiapas) ..... **tarsalis** sp. n.  
 Hind tibia with only one anterodorsal; fore tarsus plain ..... 6
6. Lower pleural surface yellow; wing veins 3 and 4 slightly diverging apically (Costa Rica) ..... **schildi** sp. n.  
 Pleura totally dark; wing veins 3 and 4 parallel apically (Oaxaca, Chiapas) ..... **obscura** sp. n.

#### *Neoparentia bisetosa* sp. n.

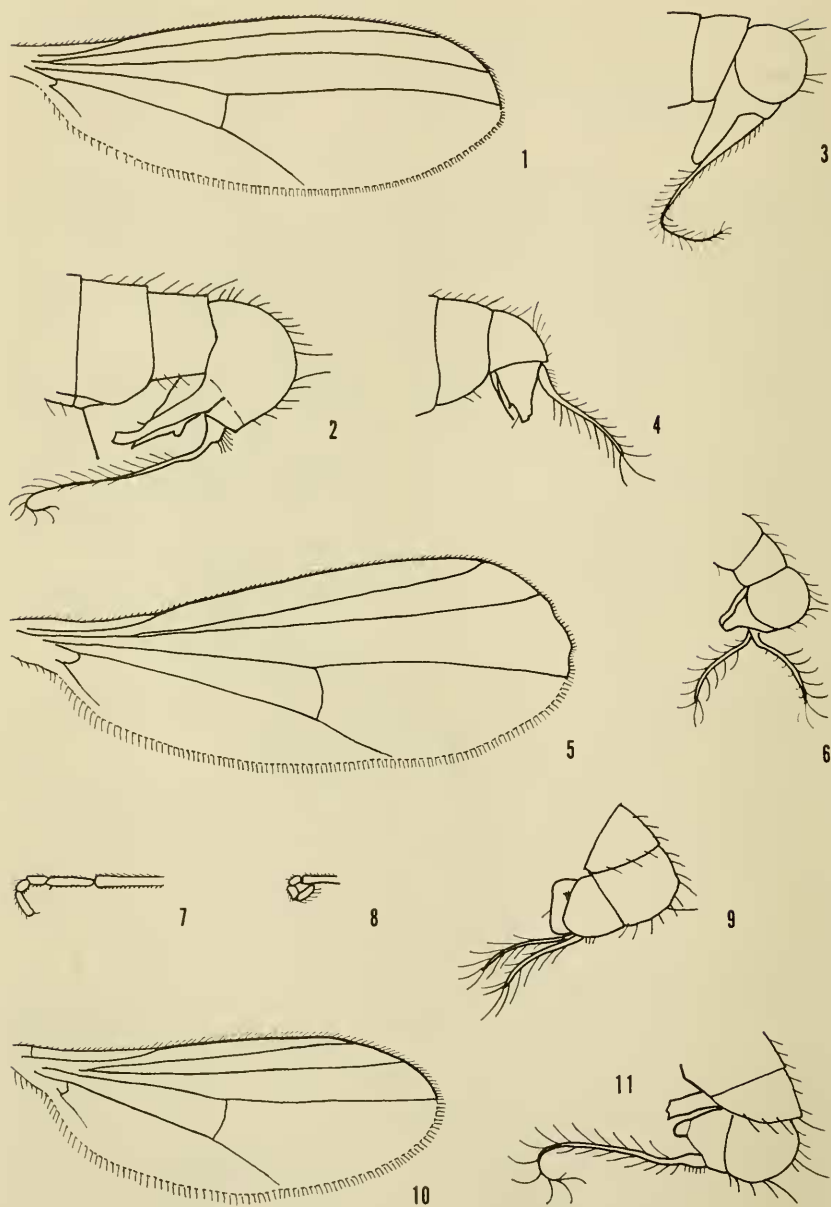
(Figs. 1, 2)

*Male*.—Length 3.4 mm; wing 3.2 mm by 1.1 mm.

Face long and narrow with eyes nearly contiguous in lower half, gradually wider above, covered with yellowish-white pollen; front metallic bluish with slight yellowish pollen. Palpus pale. Antenna brown, first and part of second segment yellow, first rather narrow; second segment very short; third segment about as long as wide, rounded apically; arista basal.

Mesonotum metallic greenish dulled with yellow pollen, darker lines following rows of bristles, grayer pollen on sides; metepimeron mostly darkened, pale below. Acrostichals reaching onto posterior slope.

Legs mostly yellow; distal joints of tarsi, tip of hind femur and tibia, and all of hind tarsus dark; setae mostly black, pale setae anteriorly on fore and middle coxae and ventrally on femora. Middle femur with a row of short erect black setae near base on posteroventral surface; middle tibia with large anterodorsal and posterodorsal near basal fourth, anterodorsal and crest of about eight ventrals near distal



Figs. 1-11, *Neoparentia*, males. Figs. 1-2, *bisetosa* sp. n.: 1, wing; 2, hypopygium. Fig. 3, *bicolor* (Parent), hypopygium (after Parent, 1954). Figs. 4-5, *deformis* sp. n.: 4, hypopygium; 5, wing. Fig. 6, *obscura* sp. n., hypopygium. Figs. 7-10, *tarsalis* sp. n.: 7-8, fore tarsi; 9, hypopygium; 10, wing. Fig. 11, *schildi* sp. n., hypopygium.

third, one subapical ventrally, two or three apicals; hind tibia with two anterodorsals, five or more posterodorsals, five or more indistinct ventrals, four apicals. Lengths of joints of fore tarsus from base as 9-5-4-3-2; middle tarsus as 12-7-6-4-3; hind tarsus as 8-12-8-5-4.

Wing slightly brownish tinged; third and fourth veins curving slightly backwards and converging slightly toward the tip, essentially parallel at the tip, crossvein about half as long as last of fifth vein; anal margin slightly but distinctly rounded. Tip of calypter dark, its setae and the halter pale.

Abdomen very elongate; second and third segment yellow with brown fore and hind margins, other segments brown; setae mostly black; fifth sternite bearing a pair of long stiff blunt bristles.

Female face wider, as wide as third antennal segment, covered with gray pollen; all segments of antennae short, third wider than long. Middle femur without distinct posteroventrals; middle tibia with only two ventrals, one near basal and one near distal third. Anal margin of wing slightly more prominent.

Holotype male, allotype female, three male and ten female paratypes, from around puddles on trail, ridge above Pueblo Nuevo, Chiapas, Mexico, Dec. 24, 1962. Two female paratypes, from small pool in pine forest, near crest of Sierra Juarez above Ixtlán de Juarez, Oaxaca, Mexico, May 19, 1963. Holotype and allotype in U.S. National Museum, others presently in the author's collection.

The species is the largest in size of those now known in the genus. The pair of rod-like appendages on the venter of the abdomen are rather distinctive, but recently Harmston and Miller (1966) have called attention to such structures in the following apparently related species from the Western United States.

***Neoparentia caudata*** (Van Duzee) comb. n.

*Sympycnus caudatus* Van Duzee, 1917, Can. Ent. 49: 338.

*Parasyntormon caudatum* (Van Duzee) Harmston and Miller, 1966, Proc. Ent. Soc. Wash. 68: 92.

This California species differs from *N. bisetosa* by the smaller size, 2-3 mm, the more restricted yellow coloration at the base of the abdomen, and the somewhat thickened second joint of the fore tarsus. Harmston and Miller (1966) call attention to the paired setae on the venter of the abdomen which are similar to those in many species of *Parasyntormon*. According to the illustration by Van Duzee (1930) the antenna of his species is of a *Sympycnus* or *Neoparentia* type and completely unlike *Parasyntormon*. Van Duzee describes the hypopygial lamellae as very long, yellow, fringed with long hairs. Though such lamellae are found in the genus *Sympycnus*, apparently paired rod-like setae on the abdominal sternites are not. Pubescence of the scutellum has not yet been noted.

***Neoparentia bicolor* (Parent) comb. n.**

(Fig. 3)

*Nematoproctus bicolor* Parent, 1954, Beitr. Ent. 4: 223.

The species is most obviously distinct from *Nematoproctus* by the lack of numerous long pale hairs on the upper part of the proepisternum. Of particular note in Parent's (1954) original description are the following:

Length 3.0 mm; palpus creamy white, antenna yellow; a single series of acrostichals; metepimeron, coxae, abdominal segments 2 and 3 and sides of 4 and 5 yellow; middle femur with series of 3-4 rigid setae ventrally near the base, middle tibia with 2 setae of remarkable length ventrally in the apical part; setae of calypter black.

***Neoparentia deformis* sp. n.**

(Figs. 4, 5)

*Male*.—Length 2.8-3.0 mm; wing 3.6 mm by 1.3 mm.

Face long and narrow, gradually wider above, covered with yellowish-white pollen; front with metallic bluish ground color nearly obscured by dense yellowish-brown pollen. Palpus white with white hairs which are more prominent apically. First two antennal segments yellowish, third segment brown; first segment long and narrow; second very short; third longer than wide, triangular, rounded basally; arista nearly basal.

Mesonotum metallic bluish nearly obscured by dense yellowish brown pollen; pleural surface dark with grayish pollen, lower half of metepisternum yellow. A series of acrostichal setae anteriorly, posteriorly acrostichals sparse or lacking.

Legs almost wholly yellow, hind tarsus dark distally; setae mostly black, some pale setae anteriorly on fore and middle coxae and ventrally on femora. Middle tibia with antero- and posterodorsal near basal third, anterodorsal and ventral near distal third, four apicals; hind tibia with one anterodorsal, about four posterodorsals, two or three small ventrals, four apicals. Lengths of joints of fore tarsus from base as 10-4-3-2-2; middle tarsus as 11-5-4-2-2; hind tarsus as 6-7-4-2-2.

Wing clear, broadly rounded and slightly crinkled apically; third vein curving gradually forward near the tip, fourth curving gradually backward near tip and prominently divergent from third; crossvein three-fourths as long as last of fifth vein; anal margin slightly but distinctly rounded. Tip of calypter dark, its setae pale; knob of halter slightly to distinctly brownish.

Abdomen very elongate, drooping, brown; hypopygium small for the genus.

Female face as wide as antenna, grayish; third antennal segment only about as long as wide, subacute; hind tibia with three or four rather distinct ventrals; third and fourth wing veins only slightly divergent at tips, anal margin slightly more prominent.

Holotype male, allotype female, and eight male paratypes, from small pool in pine forest, near crest of Sierra Juarez above Ixtlán de Juarez, Oaxaca, Mexico, May 19, 1963. One female paratype, by puddles on trail, ridge above Pueblo Nuevo, Chiapas, Mexico, Dec. 24, 1962. Holotype and allotype in U.S. National Museum, others presently in the author's collection.

**Neoparentia obscura** sp. n.

(Fig. 6)

*Male*.—Length 2.0 mm; wing 2.2 mm by 0.9 mm.

Face long and very narrow, almost obliterated in lower part, covered with yellowish pollen; front metallic bluish dulled with grayish yellow pollen. Palpus dark. First two segments of antenna yellowish, first narrow, second shorter and broader; third segment brown, triangular, pointed, half again as long as wide; arista basal.

Mesonotum metallic bluish green, dulled with grayish pollen anteriorly; pleura brownish, lower half of metapisternum yellow. Acrostichals reaching onto posterior slope.

Legs wholly yellow with setae black. Middle tibia with two rather long anterodorsals, first paired with a shorter posterodorsal near basal fourth, small ventral near distal third, three apicals; hind tibia with one anterodorsal near base, three or four shorter posterodorsals, two or three rather indistinct ventrals. Lengths of joints of fore tarsus from base as 8-5-4-3-2; middle tarsus as 10-5-4-3-2; hind tarsus as 5-7-5-3-3.

Wing clear; third and fourth veins nearly straight and essentially parallel beyond crossvein; crossvein about half as long as last of fifth vein; anal margin distinctly rounded. Tip of calypter and its setae black; knob of halter brown.

Abdomen slightly longer than thorax, brown.

Female face as wide as first antennal segment; antennal segments all short, second shortest, third about as wide as long, rounded. Hind tibia with a series of indistinct ventrals. Anal margin of wing slightly more prominent.

Holotype male, allotype female, five male and three female paratypes, on foliage in rain forest, near 100 km marker, Rt. 175 above Rio Valle Nacional; five male and one female paratypes, near Rio Valle Nacional, Oaxaca, Mexico, May 16-18, 1963. One female paratype, near Puerto Vientes above Pueblo Nuevo, Chiapas, Mexico, May 24, 1963. Holotype and allotype in the U.S. National Museum, others presently in the author's collection.

**Neoparentia tarsalis** sp. n.

(Figs. 7-10)

*Male*.—Length 2.0 mm; wing 2.2 mm by 0.9 mm.

Face long and very narrow, eyes contiguous near middle, face covered with whitish pollen; front dark metallic bluish with slight brownish pollen. Palpus dark. Antenna brown; first segment narrow, about as long as third; second shorter; third slightly longer than wide, bluntly pointed; arista basal.

Mesonotum metallic bluish green dulled with brownish pollen, more grayish on pleura; lower half of metapisternum yellow. Acrostichals reaching onto posterior slope.

Legs wholly yellow with mostly black setae, some pale setae on anterior surface of fore coxa and ventrally on femora. Middle tibia with an antero- and posterodorsal near basal third, anterodorsal and small ventral near distal third, four apicals; hind tibia with two strong anterodorsals, five or more prominent posterodorsals, four or five small ventrals, four apicals. Lengths of joints of fore tarsus



from base as 8-5-2-2-3, last three joints usually tightly folded; middle tarsus as 11-5-4-3-2; hind tarsus as 5-7-4-3-2.

Wing clear; third vein straight, fourth parallel with third for much of last part, bending slightly backward near tip; crossvein about two-thirds as long as last of fifth vein; anal margin slightly but distinctly rounded. Tip of calypter and its setae black; knob of halter pale brown.

Abdomen very slightly longer than thorax, brown with slight yellow on side of second tergite and venter.

Female face wider, as wide in middle as first antennal segment; antennal segments all short, second shortest, third about as wide as long, rounded. Ventrals of hind tibia more prominent, joints of fore tarsus not folded. Anal margin of wing slightly more prominent.

Holotype male, allotype female, six male and three female paratypes, on foliage in rain forest, above Rio Valle Nacional, Oaxaca, Mexico, May 14-16, 1962; two male and one female paratypes, same locality, Dec. 20-21, 1962; two male and two female paratypes, near 100 km marker, Rt. 175, Sierra Juarez above Rio Valle Nacional, Oaxaca, Mexico, May 17-18, 1963. One male paratype, near Puerto Vientes above Pueblo Nuevo, Chiapas, Mexico, May 24, 1963. Holotype and allotype in U.S. National Museum, others presently in the author's collection.

The slightly divergent tips of the third and fourth wing veins seem to indicate relationship to *Neoparentia deformis*, but that species has a much more deformed wing and lacks the modified fore tarsus in the male.

#### *Neoparentia schildi* sp. n.

(Fig. 11)

*Male*.—Length 2.5 mm; wing 2.7 mm by 1.0 mm.

Face long and narrow, gradually wider above, covered with grayish brown pollen; front metallic bluish with slight brownish pollen. Palpus dark. Antenna brown, first two segments rather yellowish; first segment narrow; second shorter and wider; third half again as long as wide, triangular, bluntly pointed; arista basal.

Mesonotum metallic bluish green dulled with brownish pollen; upper pleural surface brownish with gray pollen, lower pleural surface and metaposternum yellowish. Acrostichals reaching onto posterior slope.

Legs wholly yellow with mostly black setae, some pale setae anteriorly on fore coxa and ventrally on femora. Middle tibia with antero- and posterodorsal near basal third, anterodorsal and ventral near distal third, one or more rather slender anteroventrals near tip, four apicals; hind tibia with one anterodorsal, about four posterodorsals, two small ventrals, four apicals. Lengths of joints of fore tarsus from base as 9-4-3-2-2; middle tarsus as 11-5-4-2-2; hind tarsus as 6-8-5-3-2.

Wing slightly brownish tinged, rather pointed at tip of fourth vein; third vein straight, fourth vein slightly diverging from third near tip; crossvein two-thirds as long as last of fifth vein; anal margin slightly but distinctly rounded. Tip of calypter and its setae black; knob of halter very pale brownish.

Abdomen slightly longer than thorax, brown.  
Female unknown.

Holotype male and one male paratype, Turrialba, Costa Rica, Nov. 1922. Two male paratypes, La Suiza, Costa Rica, one dated April, 1922. All collected by Pablo Schild and in the A. L. Melander collection in U.S. National Museum.

Though *Neoparentia schildi* provides the southernmost known record for the genus, other species will undoubtedly be found in South America.

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### A LIST OF THE APHIDS OF CYPRUS

(HOMOPTERA : APHIDIDAE)

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During 1965 Dr. Harry G. Walker, while serving his last year as a FAO entomologist in Cyprus, made about 25 collections of aphids for me from this Island. These represented 14 species. An examination of Bodenheimer & Swirski's "Aphidoidea of the Middle East" (1957) showed that only 10 species of aphids had been recorded as occurring in Cyprus. Of these Walker had collected four species.

D. S. Wilkinson (1925 and 1926) published a few notes on Cyprus aphids as did also H. M. Morris (1937). These form the source of most of the statements of occurrence of aphids in Cyprus as given by Bodenheimer & Swirski. G. P. Georghiou (1957) published a "Catalog of Cyprus Insects" on pp. 5-5a of which he merely lists the names of 11 species of aphids. B. J. Wood (1963) published a note on *Toxoptera aurantii* (Fonscolombe) in Cyprus.

It occurred to me that the taxonomists in the British Museum (Natural History) may have determined aphids from Cyprus from time to